

**Official Amendment**

Serial No. – 10/625,886

Docket No. – UVD 0299 IA / UD 268

Amendments to the Claims

The following listing of claims will replace all prior versions, and listings, of claims in the present application:

1. (Currently Amended) A solid corrosion-inhibiting seal formed on a coating selected from anodic coatings, phosphating coatings, or black oxide coatings, the solid corrosion-inhibiting seal comprising a rare earth element and an inorganic valence stabilizer combined to form a rare earth/valence stabilizer complex within the solid corrosion-inhibiting seal, wherein the rare earth element is selected from cerium, praseodymium, terbium, or combinations thereof, and at least one rare earth element is in the tetravalent oxidation state in the rare earth/valence stabilizer complex in the solid corrosion-inhibiting seal, and wherein the valence stabilizer consists essentially of an inorganic valence stabilizer.
2. (Original) The corrosion-inhibiting seal of claim 1 wherein the rare earth/valence stabilizer complex has a solubility in water of between about  $5 \times 10^{-1}$  and about  $1 \times 10^{-5}$  moles per liter of cerium, praseodymium, or terbium at about 25°C and about 760 Torr.
3. (Original) The corrosion-inhibiting seal of claim 2 wherein the solubility in water of the rare earth/valence stabilizer complex is between about  $5 \times 10^{-2}$  and about  $5 \times 10^{-5}$  moles per liter of cerium, praseodymium, or terbium at about 25°C and about 760 Torr.
4. (Original) The corrosion-inhibiting seal of claim 1 wherein there is an electrostatic barrier layer around the rare earth/valence stabilizer complex in aqueous solution.

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5. (Original) The corrosion-inhibiting seal of claim 1 wherein the rare earth/valence stabilizer complex acts as an ion exchange agent towards corrosive ions.
6. (Previously Presented) The corrosion-inhibiting seal of claim 1 wherein the anodic coatings, phosphating coatings, or black oxide coatings comprise a compound selected from oxides, hydroxides, phosphates, carbonates, oxalates, silicates, aluminates, borates, polymers, or combinations thereof.
7. (Original) The corrosion-inhibiting seal of claim 1 wherein the rare earth/valence stabilizer complex has a central cavity containing a cerium, praseodymium, or terbium ion and an additional ion.
8. (Original) The corrosion-inhibiting seal of claim 7 wherein the additional ion is  $B^{+3}$ ,  $Al^{+3}$ ,  $Si^{+4}$ ,  $P^{+5}$ ,  $Ti^{+4}$ ,  $V^{+5}$ ,  $V^{+4}$ ,  $Cr^{+6}$ ,  $Cr^{+3}$ ,  $Mn^{+4}$ ,  $Mn^{+3}$ ,  $Mn^{+2}$ ,  $Fe^{+3}$ ,  $Fe^{+2}$ ,  $Co^{+2}$ ,  $Co^{+3}$ ,  $Ni^{+2}$ ,  $Ni^{+3}$ ,  $Ni^{+4}$ ,  $Cu^{+2}$ ,  $Cu^{+3}$ ,  $Zn^{+2}$ ,  $Ga^{+3}$ ,  $Ge^{+4}$ ,  $As^{+5}$ ,  $As^{+3}$ , or  $Zr^{+4}$ .
9. (Canceled)
10. (Previously Presented) The corrosion-inhibiting seal of claim 1 wherein the inorganic valence stabilizer is selected from molybdates, tungstates, vanadates, niobates, tantalates, tellurates, periodates, iodates, carbonates, antimonates, stannates, phosphates, nitrates, bromates, sulfates, titanates, zirconates, bismuthates, germanates, arsenates, selenates, borates, aluminates, silicates, or combinations thereof.
11. (Original) The corrosion-inhibiting seal of claim 10 wherein the valence stabilizer is the inorganic valence stabilizer selected from molybdates, tungstates, vanadates, niobates, tantalates,

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tellurates, periodates, iodates, carbonates, antimonates, stannates, phosphates, nitrates, bromates, sulfates, or combinations thereof.

12-34. (Canceled)

35. (Original) The corrosion-inhibiting seal of claim 1 further comprising a solubility control agent.

36. (Original) The corrosion-inhibiting seal of claim 35 wherein the solubility control agent is a cationic solubility control agent or an anionic solubility control agent.

37. (Original) The corrosion-inhibiting seal of claim 36 wherein the solubility control agent is the cationic solubility control agent selected from  $H^+$ ;  $Li^+$ ;  $Na^+$ ;  $K^+$ ;  $Rb^+$ ;  $Cs^+$ ;  $NH_4^+$ ;  $Mg^{+2}$ ;  $Ca^{+2}$ ;  $Sr^{+2}$ ;  $Be^{+2}$ ;  $Ba^{+2}$ ;  $Y^{+3}$ ;  $La^{+3}$ ;  $Ce^{+3}$ ;  $Ce^{+4}$ ;  $Nd^{+3}$ ;  $Pr^{+3}$ ;  $Sc^{+3}$ ;  $Sm^{+3}$ ;  $Eu^{+3}$ ;  $Eu^{+2}$ ;  $Gd^{+3}$ ;  $Tb^{+3}$ ;  $Dy^{+3}$ ;  $Ho^{+3}$ ;  $Er^{+3}$ ;  $Tm^{+3}$ ;  $Yb^{+3}$ ;  $Lu^{+3}$ ;  $Ti^{+4}$ ;  $Zr^{+4}$ ;  $Hf^{+4}$ ;  $Nb^{+5}$ ;  $Ta^{+5}$ ;  $Nb^{+4}$ ;  $Ta^{+4}$ ;  $V^{+5}$ ;  $V^{+4}$ ;  $V^{+3}$ ;  $Mo^{+6}$ ;  $W^{+6}$ ;  $Mo^{+5}$ ;  $W^{+5}$ ;  $Mo^{+4}$ ;  $W^{+4}$ ;  $Cr^{+3}$ ;  $Mn^{+2}$ ;  $Mn^{+3}$ ;  $Mn^{+4}$ ;  $Fe^{+2}$ ;  $Fe^{+3}$ ;  $Co^{+2}$ ;  $Co^{+3}$ ;  $Ni^{+2}$ ;  $Ni^{+3}$ ;  $Ni^{+4}$ ;  $Ru^{+2}$ ;  $Ru^{+3}$ ;  $Ru^{+4}$ ;  $Rh^{+3}$ ;  $Ir^{+3}$ ;  $Rh^{+2}$ ;  $Ir^{+2}$ ;  $Pd^{+4}$ ;  $Pt^{+4}$ ;  $Pd^{+2}$ ;  $Pt^{+2}$ ;  $Os^{+4}$ ;  $Cu^+$ ;  $Cu^{+2}$ ;  $Cu^{+3}$ ;  $Ag^+$ ;  $Ag^{+2}$ ;  $Ag^{+3}$ ;  $Au^+$ ;  $Au^{+2}$ ;  $Au^{+3}$ ;  $Zn^{+2}$ ;  $Cd^{+2}$ ;  $Hg^+$ ;  $Hg^{+2}$ ;  $Al^{+3}$ ;  $Ga^{+3}$ ;  $Ga^+$ ;  $In^{+3}$ ;  $In^+$ ;  $Tl^{+3}$ ;  $Tl^+$ ;  $Ge^{+4}$ ;  $Ge^{+2}$ ;  $Sn^{+4}$ ;  $Sn^{+2}$ ;  $Pb^{+4}$ ;  $Pb^{+2}$ ;  $Sb^{+3}$ ;  $Sb^{+5}$ ;  $As^{+3}$ ;  $As^{+5}$ ;  $Bi^{+3}$ ;  $Bi^{+5}$ ; organic compounds containing at least one  $N^+$  site; organic compounds containing at least one phosphonium site; organic compounds containing at least one arsonium site; organic compounds containing at least one stibonium site; organic compounds containing at least one oxonium site; organic compounds containing at least one sulfonium site; organic compounds containing at least one selenonium site; organic compounds containing at least one iodonium site; quaternary ammonium

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compounds having a formula  $\text{NR}_4^+$ , where R is an alkyl, aromatic, or acyclic organic constituent; or combinations thereof.

38. (Original) The corrosion-inhibiting seal of claim 37 wherein the cationic solubility control agent is selected from  $\text{H}^+$ ;  $\text{Li}^+$ ;  $\text{Na}^+$ ;  $\text{K}^+$ ;  $\text{Rb}^+$ ;  $\text{Cs}^+$ ;  $\text{NH}_4^+$ ;  $\text{Mg}^{+2}$ ;  $\text{Ca}^{+2}$ ;  $\text{Sr}^{+2}$ ;  $\text{Y}^{+3}$ ;  $\text{La}^{+3}$ ;  $\text{Ce}^{+3}$ ;  $\text{Ce}^{+4}$ ;  $\text{Nd}^{+3}$ ;  $\text{Pr}^{+3}$ ;  $\text{Sc}^{+3}$ ;  $\text{Sm}^{+3}$ ;  $\text{Eu}^{+3}$ ;  $\text{Eu}^{+2}$ ;  $\text{Gd}^{+3}$ ;  $\text{Tb}^{+3}$ ;  $\text{Dy}^{+3}$ ;  $\text{Ho}^{+3}$ ;  $\text{Er}^{+3}$ ;  $\text{Tm}^{+3}$ ;  $\text{Yb}^{+3}$ ;  $\text{Lu}^{+3}$ ;  $\text{Ti}^{+4}$ ;  $\text{Zr}^{+4}$ ;  $\text{Ti}^{+3}$ ;  $\text{Hf}^{+4}$ ;  $\text{Nb}^{+5}$ ;  $\text{Ta}^{+5}$ ;  $\text{Nb}^{+4}$ ;  $\text{Ta}^{+4}$ ;  $\text{Mo}^{+6}$ ;  $\text{W}^{+6}$ ;  $\text{Mo}^{+5}$ ;  $\text{W}^{+5}$ ;  $\text{Mo}^{+4}$ ;  $\text{W}^{+4}$ ;  $\text{Mn}^{+2}$ ;  $\text{Mn}^{+3}$ ;  $\text{Mn}^{+4}$ ;  $\text{Fe}^{+2}$ ;  $\text{Fe}^{+3}$ ;  $\text{Co}^{+2}$ ;  $\text{Co}^{+3}$ ;  $\text{Ru}^{+2}$ ;  $\text{Ru}^{+3}$ ;  $\text{Ru}^{+4}$ ;  $\text{Rh}^{+3}$ ;  $\text{Ir}^{+3}$ ;  $\text{Rh}^{+2}$ ;  $\text{Ir}^{+2}$ ;  $\text{Pd}^{+4}$ ;  $\text{Pt}^{+4}$ ;  $\text{Pd}^{+2}$ ;  $\text{Pt}^{+2}$ ;  $\text{Cu}^+$ ;  $\text{Cu}^{+2}$ ;  $\text{Cu}^{+3}$ ;  $\text{Ag}^+$ ;  $\text{Ag}^{+2}$ ;  $\text{Ag}^{+3}$ ;  $\text{Au}^+$ ;  $\text{Au}^{+2}$ ;  $\text{Au}^{+3}$ ;  $\text{Zn}^{+2}$ ;  $\text{Al}^{+3}$ ;  $\text{Ga}^{+3}$ ;  $\text{Ga}^+$ ;  $\text{In}^{+3}$ ;  $\text{In}^+$ ;  $\text{Ge}^{+4}$ ;  $\text{Ge}^{+2}$ ;  $\text{Sn}^{+4}$ ;  $\text{Sn}^{+2}$ ;  $\text{Sb}^{+3}$ ;  $\text{Sb}^{+5}$ ;  $\text{Bi}^{+3}$ ;  $\text{Bi}^{+5}$ ; organic compounds containing at least one  $\text{N}^+$  site; organic compounds containing at least one phosphonium site; organic compounds containing at least one stibonium site; organic compounds containing at least one oxonium site; organic compounds containing at least one sulfonium site; organic compounds containing at least one iodonium site; quaternary ammonium compounds having a formula  $\text{NR}_4^+$ , where R is an alkyl, aromatic, or acyclic organic constituent; or combinations thereof.

39. (Withdrawn) The corrosion-inhibiting seal of claim 36 wherein the solubility control agent is the anionic solubility control agent selected from fluorotitanates, chlorotitanates, fluorozirconates, chlorozirconates, fluoroniobates, chloroniobates, fluorotantalates, chlorotantalates, molybdates, tungstates, permanganates, fluoromanganates, chloromanganates, fluoroferrates, chloroferrates, fluorocobaltates, chlorocobaltates, fluorozincates, chlorozincates, borates, fluoroborates, fluoroaluminates, chloroaluminates, carbonates, silicates, fluorosilicates, fluorostannates, nitrates, nitrites, azides, cyanamides, phosphates, phosphites, phosphonates, phosphinites, thiophosphates, thiophosphites, thiophosphonates, thiophosphinites, fluorophosphates, fluoroantimonates, chloroantimonates, sulfates, sulfites, sulfonates, thiosulfates, dithionites, dithionates, fluorosulfates, tellurates, fluorides, chlorides, chlorates,

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perchlorates, bromides, bromates, iodides, iodates, periodates, heteropolyanions, ferricyanides, ferrocyanides, cyanocobaltates, cyanocuprates, cyanomanganates, cyanates, cyanatoferrates, cyanatocobaltates, cyanatocuprates, cyanatomanganates, thiocyanates, thiocyanatoferrates, thiocyanatocobaltates, thiocyanatocuprates, thiocyanatomanganates, cyanamides, cyanamidoferrates, cyanamidocobaltates, cyanamidocuprates, cyanamidomanganates, nitritoferrates, nitritocobaltates, azides, (thio)carboxylates, di(thio)carboxylates, tri(thio)carboxylates, tetra(thio)carboxylates, (thio)phenolates, di(thio)phenolates, tri(thio)phenolates, tetra(thio)phenolates, (thio)phosphonates, di(thio)phosphonates, tri(thio)phosphonates, (thio)phosphonamides, di(thio)phosphonamides, tri(thio)phosphonamides, amino(thio)phosphonates, diamino(thio)phosphonates, triamino(thio)phosphonates, imino(thio)phosphonates, diimino(thio)phosphonates, (thio)sulfonates, di(thio)sulfonates, tri(thio)sulfonates, (thio)sulfonamides, di(thio)sulfonamides, tri(thio)sulfonamides, amino(thio)sulfonates, diamino(thio)sulfonates, triamino(thio)sulfonates, imino(thio)sulfonates, diimino(thio)sulfonates, (thio)borates, di(thio)borates, (thio)boronates, organic silicates, stibonates, cyanides, cyanochromates, cyanonickelates, cyanatochromates, cyanatonickelates, thiocyanatochromates, thiocyanatonickelates, cyanamidochromates, cyanamidonickelates, nitritonickelates, arsonates, diarsenates, triarsenates, organic selenates, diselenates, triselenates, arsenates, arsenites, fluoroarsenates, chloroarsenates, selenates, selenites, fluorothallates, chlorothallates, iodomercury anions, chloromercurates, bromomercurates, osmates, fluoronickelates, chromates, Reinecke's salt, vanadates, or combinations thereof.

40. (Withdrawn) The corrosion-inhibiting seal of claim 39 wherein the anionic solubility control agent is selected from fluorotitanates, chlorotitanates, fluorozeonates, chlorozeonates, fluoroniobates, chloroniobates, fluorotantalates, chlorotantalates, molybdates, tungstates, permanganates, fluoromanganates, chloromanganates, fluoroferates, chloroferates, fluorocobaltates, chlorocobaltates, fluorozeonates, chlorozeonates, borates, fluoroborates, fluoroaluminates, chloroaluminates, carbonates, silicates, fluorosilicates, fluorostannates,

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nitrates, nitrites, azides, cyanamides, phosphates, phosphites, phosphonates, phosphinites, thiophosphates, thiophosphites, thiophosphonates, thiophosphinites, fluorophosphates, fluoroantimonates, chloroantimonates, sulfates, sulfites, sulfonates, thiosulfates, dithionites, dithionates, fluorosulfates, tellurates, fluorides, chlorides, chlorates, perchlorates, bromides, bromates, iodides, iodates, periodates, heteropolyanions, ferricyanides, ferrocyanides, cyanocobaltates, cyanocuprates, cyanomanganates, cyanates, cyanatoferrates, cyanatocobaltates, cyanatocuprates, cyanatomanganates, thiocyanates, thiocyanatoferrates, thiocyanatocobaltates, thiocyanatocuprates, thiocyanatomanganates, cyanamides, cyanamidoferrates, cyanamidocobaltates, cyanamidocuprates, cyanamidomanganates, nitritoferrates, nitritocobaltates, azides, (thio)carboxylates, di(thio)carboxylates, tri(thio)carboxylates, tetra(thio)carboxylates, (thio)phenolates, di(thio)phenolates, tri(thio)phenolates, tetra(thio)phenolates, (thio)phosphonates, di(thio)phosphonates, tri(thio)phosphonates, (thio)phosphonamides, di(thio)phosphonamides, tri(thio)phosphonamides, amino(thio)phosphonates, diamino(thio)phosphonates, triamino(thio)phosphonates, imino(thio)phosphonates, diimino(thio)phosphonates, (thio)sulfonates, di(thio)sulfonates, tri(thio)sulfonates, (thio)sulfonamides, di(thio)sulfonamides, tri(thio)sulfonamides, amino(thio)sulfonates, diamino(thio)sulfonates, triamino(thio)sulfonates, imino(thio)sulfonates, diimino(thio)sulfonates, (thio)borates, di(thio)borates, (thio)boronates, organic silicates, stibonates, or combinations thereof.

41. (Original) The corrosion-inhibiting seal of claim 1 further comprising a lubricity agent.
42. (Original) The corrosion-inhibiting seal of claim 41 wherein the lubricity agent is selected from molybdenum disulfide, fluorinated hydrocarbons, perfluorinated hydrocarbons, graphite, soft metals, polymers, or combinations thereof.

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43. (Original) The corrosion-inhibiting seal of claim 42 wherein the lubricity agent is the soft metal selected from tin, indium, silver, or combinations thereof.

44. (Original) The corrosion-inhibiting seal of claim 1 wherein the corrosion-inhibiting seal is colored.

45. (Original) The corrosion-inhibiting seal of claim 44 further comprising an agent which improves color-fastness of the corrosion-inhibiting seal.

46. (Original) The corrosion-inhibiting seal of claim 45 wherein the agent which improves color-fastness is selected from an active UV blocker, a passive UV blocker, a brightener, or a combination thereof.

47. (Original) The corrosion-inhibiting seal of claim 46 wherein the agent which improves color-fastness is the active UV blocker selected from carbon black, graphite, phthalocyanines, or combinations thereof.

48. (Withdrawn) The corrosion-inhibiting seal of claim 46 wherein the agent which improves color-fastness is the passive UV blocker selected from titanium oxide, tin oxide, lead oxide, silicon oxide, silicates, aluminosilicates, or combinations thereof.

49. (Withdrawn) The corrosion-inhibiting seal of claim 46 wherein the agent which improves color-fastness is the brightener selected from sulfonic acids, sulfonates, sulfonamides, sulfonic acids, sulfonates, sulfones, cyanides, nonionic surfactants, or combinations thereof.

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50. (Withdrawn) The corrosion-inhibiting seal of claim 44 wherein the color is formed by a dye selected from vat dyes, mordant dyes, lake dyes, disperse dyes, azo dyes, triazine dyes, triphenylmethane dyes, azine dyes, formazan dyes, phthalocyanine dyes, Schiff Base dyes, naturally-occurring dyes, inorganic pigments, or combinations thereof.

51. (Original) The corrosion-inhibiting seal of claim 45 wherein the agent which improves color-fastness is an agent which prevents smudging.

52. (Original) The corrosion-inhibiting seal of claim 51 wherein the agent which prevents smudging is selected from phosphoric acid, metaphosphates, orthophosphates, pyrophosphates, polyphosphates, or combinations thereof.

53. (Original) The corrosion-inhibiting seal of claim 45 wherein the agent which improves color-fastness is a wetting agent.

54. (Original) The corrosion-inhibiting seal of claim 53 further comprising less than about 5 g/L of the wetting agent.

55. (Original) The corrosion-inhibiting seal of claim 53 wherein the wetting agent is a nonionic surfactant.

56-136. (Canceled)



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137. (Currently Amended) A solid corrosion-inhibiting seal formed on a coating selected from anodic coatings, phosphating coatings, or black oxide coatings, the solid corrosion-inhibiting seal comprising a rare earth element and an inorganic valence stabilizer combined to form a rare earth/valence stabilizer complex within the solid corrosion-inhibiting seal, wherein the rare earth element is selected from cerium, praseodymium, terbium, or combinations thereof, at least one rare earth element is in the tetravalent oxidation state, and the rare earth/valence stabilizer complex is sparingly soluble in water at about 25°C and about 760 Torr in the rare earth/valence stabilizer complex in the solid corrosion-inhibiting seal, ~~and wherein the valence stabilizer consists essentially of an inorganic valence stabilizer.~~

138-139. (Canceled)

140. (Previously Presented) A solid corrosion-inhibiting seal formed on a coating selected from anodic coatings, phosphating coatings, or black oxide coatings, the solid corrosion-inhibiting seal comprising a rare earth element and a valence stabilizer combined to form a rare earth/valence stabilizer complex within the solid corrosion-inhibiting seal, wherein the rare earth element is selected from cerium, praseodymium, terbium, or combinations thereof, and at least one rare earth element is in the tetravalent oxidation state, wherein the rare earth/valence stabilizer complex has a central cavity containing a cerium, praseodymium, or terbium ion and an additional ion, and wherein the additional ion is  $B^{+3}$ ,  $Al^{+3}$ ,  $Si^{+4}$ ,  $P^{+5}$ ,  $Ti^{+4}$ ,  $V^{+5}$ ,  $V^{+4}$ ,  $Cr^{+6}$ ,  $Cr^{+3}$ ,  $Mn^{+4}$ ,  $Mn^{+3}$ ,  $Mn^{+2}$ ,  $Fe^{+3}$ ,  $Fe^{+2}$ ,  $Co^{+2}$ ,  $Co^{+3}$ ,  $Ni^{+2}$ ,  $Ni^{+3}$ ,  $Ni^{+4}$ ,  $Cu^{+2}$ ,  $Cu^{+3}$ ,  $Zn^{+2}$ ,  $Ga^{+3}$ ,  $Ge^{+4}$ ,  $As^{+5}$ ,  $As^{+3}$ , or  $Zr^{+4}$ .

141. (Previously Presented) The corrosion-inhibiting seal of claim 140 wherein the rare earth/valence stabilizer complex has a solubility in water of between about  $5 \times 10^{-1}$  and about  $1 \times 10^{-5}$  moles per liter of cerium, praseodymium, or terbium at about 25°C and about 760 Torr.

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142. (Previously Presented) The corrosion-inhibiting seal of claim 141 wherein the solubility in water of the rare earth/valence stabilizer complex is between about  $5 \times 10^{-2}$  and about  $5 \times 10^{-5}$  moles per liter of cerium, praseodymium, or terbium at about 25°C and about 760 Torr.

143. (Previously Presented) The corrosion-inhibiting seal of claim 140 wherein there is an electrostatic barrier layer around the rare earth/valence stabilizer complex in aqueous solution.

144. (Previously Presented) The corrosion-inhibiting seal of claim 140 wherein the rare earth/valence stabilizer complex acts as an ion exchange agent towards corrosive ions.

145. (Previously Presented) The corrosion-inhibiting seal of claim 140 wherein the anodic coatings, phosphating coatings, or black oxide coatings comprise a compound selected from oxides, hydroxides, phosphates, carbonates, oxalates, silicates, aluminates, borates, polymers, or combinations thereof.

146. (Previously Presented) The corrosion-inhibiting seal of claim 140 wherein the valence stabilizer is the inorganic valence stabilizer selected from molybdates, tungstates, vanadates, niobates, tantalates, tellurates, periodates, iodates, carbonates, antimonates, stannates, phosphates, nitrates, bromates, sulfates, titanates, zirconates, bismuthates, germanates, arsenates, selenates, borates, aluminates, silicates, or combinations thereof.

147. (Previously Presented) The corrosion-inhibiting seal of claim 146 wherein the valence stabilizer is the inorganic valence stabilizer selected from molybdates, tungstates, vanadates, niobates, tantalates, tellurates, periodates, iodates, carbonates, antimonates, stannates, phosphates, nitrates, bromates, sulfates, or combinations thereof.

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148. (Previously Presented) The corrosion-inhibiting seal of claim 140 further comprising a solubility control agent.

149. (Previously Presented) The corrosion-inhibiting seal of claim 148 wherein the solubility control agent is a cationic solubility control agent or an anionic solubility control agent.

150. (Previously Presented) The corrosion-inhibiting seal of claim 149 wherein the solubility control agent is the cationic solubility control agent selected from  $H^+$ ;  $Li^+$ ;  $Na^+$ ;  $K^+$ ;  $Rb^+$ ;  $Cs^+$ ;  $NH_4^+$ ;  $Mg^{+2}$ ;  $Ca^{+2}$ ;  $Sr^{+2}$ ;  $Be^{+2}$ ;  $Ba^{+2}$ ;  $Y^{+3}$ ;  $La^{+3}$ ;  $Ce^{+3}$ ;  $Ce^{+4}$ ;  $Nd^{+3}$ ;  $Pr^{+3}$ ;  $Sc^{+3}$ ;  $Sm^{+3}$ ;  $Eu^{+3}$ ;  $Eu^{+2}$ ;  $Gd^{+3}$ ;  $Tb^{+3}$ ;  $Dy^{+3}$ ;  $Ho^{+3}$ ;  $Er^{+3}$ ;  $Tm^{+3}$ ;  $Yb^{+3}$ ;  $Lu^{+3}$ ;  $Ti^{+4}$ ;  $Zr^{+4}$ ;  $Ti^{+3}$ ;  $Hf^{+4}$ ;  $Nb^{+5}$ ;  $Ta^{+5}$ ;  $Nb^{+4}$ ;  $Ta^{+4}$ ;  $V^{+5}$ ;  $V^{+4}$ ;  $V^{+3}$ ;  $Mo^{+6}$ ;  $W^{+6}$ ;  $Mo^{+5}$ ;  $W^{+5}$ ;  $Mo^{+4}$ ;  $W^{+4}$ ;  $Cr^{+3}$ ;  $Mn^{+2}$ ;  $Mn^{+3}$ ;  $Mn^{+4}$ ;  $Fe^{+2}$ ;  $Fe^{+3}$ ;  $Co^{+2}$ ;  $Co^{+3}$ ;  $Ni^{+2}$ ;  $Ni^{+3}$ ;  $Ni^{+4}$ ;  $Ru^{+2}$ ;  $Ru^{+3}$ ;  $Ru^{+4}$ ;  $Rh^{+3}$ ;  $Ir^{+3}$ ;  $Rh^{+2}$ ;  $Ir^{+2}$ ;  $Pd^{+4}$ ;  $Pt^{+4}$ ;  $Pd^{+2}$ ;  $Pt^{+3}$ ;  $Os^{+4}$ ;  $Cu^+$ ;  $Cu^{+2}$ ;  $Cu^{+3}$ ;  $Ag^+$ ;  $Ag^{+2}$ ;  $Ag^{+3}$ ;  $Au^+$ ;  $Au^{+2}$ ;  $Au^{+3}$ ;  $Zn^{+2}$ ;  $Cd^{+2}$ ;  $Hg^+$ ;  $Hg^{+2}$ ;  $Al^{+3}$ ;  $Ga^{+3}$ ;  $Ga^+$ ;  $In^{+3}$ ;  $In^+$ ;  $Tl^{+3}$ ;  $Tl^+$ ;  $Ge^{+4}$ ;  $Ge^{+2}$ ;  $Sn^{+4}$ ;  $Sn^{+2}$ ;  $Pb^{+4}$ ;  $Pb^{+2}$ ;  $Sb^{+3}$ ;  $Sb^{+5}$ ;  $As^{+3}$ ;  $As^{+5}$ ;  $Bi^{+3}$ ;  $Bi^{+5}$ ; organic compounds containing at least one  $N^+$  site; organic compounds containing at least one phosphonium site; organic compounds containing at least one arsonium site; organic compounds containing at least one stibonium site; organic compounds containing at least one oxonium site; organic compounds containing at least one sulfonium site; organic compounds containing at least one selenonium site; organic compounds containing at least one iodonium site; quaternary ammonium compounds having a formula  $NR_4^+$ , where R is an alkyl, aromatic, or acyclic organic constituent; or combinations thereof.

151. (Previously Presented) The corrosion-inhibiting seal of claim 150 wherein the cationic solubility control agent is selected from  $H^+$ ;  $Li^+$ ;  $Na^+$ ;  $K^+$ ;  $Rb^+$ ;  $Cs^+$ ;  $NH_4^+$ ;  $Mg^{+2}$ ;  $Ca^{+2}$ ;  $Sr^{+2}$ ;  $Y^{+3}$ ;  $La^{+3}$ ;  $Ce^{+3}$ ;  $Ce^{+4}$ ;  $Nd^{+3}$ ;  $Pr^{+3}$ ;  $Sc^{+3}$ ;  $Sm^{+3}$ ;  $Eu^{+3}$ ;  $Eu^{+2}$ ;  $Gd^{+3}$ ;  $Tb^{+3}$ ;  $Dy^{+3}$ ;  $Ho^{+3}$ ;  $Er^{+3}$ ;  $Tm^{+3}$ ;  $Yb^{+3}$ ;  $Lu^{+3}$ ;  $Ti^{+4}$ ;  $Zr^{+4}$ ;  $Ti^{+3}$ ;  $Hf^{+4}$ ;  $Nb^{+5}$ ;  $Ta^{+5}$ ;  $Nb^{+4}$ ;  $Ta^{+4}$ ;  $Mo^{+6}$ ;  $W^{+6}$ ;  $Mo^{+5}$ ;  $W^{+5}$ ;  $Mo^{+4}$ ;  $W^{+4}$ ;  $Mn^{+2}$ ;

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Mn<sup>+3</sup>; Mn<sup>+4</sup>; Fe<sup>+2</sup>; Fe<sup>+3</sup>; Co<sup>+2</sup>; Co<sup>+3</sup>; Ru<sup>+2</sup>; Ru<sup>+3</sup>; Ru<sup>+4</sup>; Rh<sup>+3</sup>; Ir<sup>+3</sup>; Rh<sup>+2</sup>; Ir<sup>+2</sup>; Pd<sup>+4</sup>; Pt<sup>+4</sup>; Pd<sup>+2</sup>; Pt<sup>+2</sup>; Cu<sup>+</sup>; Cu<sup>+2</sup>; Cu<sup>+3</sup>; Ag<sup>+</sup>; Ag<sup>+2</sup>; Ag<sup>+3</sup>; Au<sup>+</sup>; Au<sup>+2</sup>; Au<sup>+3</sup>; Zn<sup>+2</sup>; Al<sup>+3</sup>; Ga<sup>+3</sup>; Ga<sup>+</sup>; In<sup>+3</sup>; In<sup>+</sup>; Ge<sup>+4</sup>; Ge<sup>+2</sup>; Sn<sup>+4</sup>; Sn<sup>+2</sup>; Sb<sup>+3</sup>; Sb<sup>+5</sup>; Bi<sup>+3</sup>; Bi<sup>+5</sup>; organic compounds containing at least one N<sup>+</sup> site; organic compounds containing at least one phosphonium site; organic compounds containing at least one stibonium site; organic compounds containing at least one oxonium site; organic compounds containing at least one sulfonium site; organic compounds containing at least one iodonium site; quaternary ammonium compounds having a formula NR<sub>4</sub><sup>+</sup>, where R is an alkyl, aromatic, or acyclic organic constituent; or combinations thereof.

152. (Previously Presented) The corrosion-inhibiting seal of claim 140 further comprising a lubricity agent.

153. (Previously Presented) The corrosion-inhibiting seal of claim 152 wherein the lubricity agent is selected from molybdenum disulfide, fluorinated hydrocarbons, perfluorinated hydrocarbons, graphite, soft metals, polymers, or combinations thereof.

154. (Previously Presented) The corrosion-inhibiting seal of claim 153 wherein the lubricity agent is the soft metal selected from tin, indium, silver, or combinations thereof.

155. (Previously Presented) The corrosion-inhibiting seal of claim 140 wherein the corrosion-inhibiting seal is colored.

156. (Previously Presented) The corrosion-inhibiting seal of claim 155 further comprising an agent which improves color-fastness of the corrosion-inhibiting seal.

**Official Amendment**

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157. (Previously Presented) The corrosion-inhibiting seal of claim 156 wherein the agent which improves color-fastness is selected from an active UV blocker, a passive UV blocker, a brightener, or a combination thereof.

158. (Previously Presented) The corrosion-inhibiting seal of claim 157 wherein the agent which improves color-fastness is the active UV blocker selected from carbon black, graphite, phthalocyanines, or combinations thereof.

159. (Previously Presented) The corrosion-inhibiting seal of claim 156 wherein the agent which improves color-fastness is an agent which prevents smudging.

160. (Previously Presented) The corrosion-inhibiting seal of claim 159 wherein the agent which prevents smudging is selected from phosphoric acid, metaphosphates, orthophosphates, pyrophosphates, polyphosphates, or combinations thereof.

161. (Previously Presented) The corrosion-inhibiting seal of claim 156 wherein the agent which improves color-fastness is a wetting agent.

162. (Previously Presented) The corrosion-inhibiting seal of claim 161 further comprising less than about 5 g/L of the wetting agent.

163. (Previously Presented) The corrosion-inhibiting seal of claim 161 wherein the wetting agent is a nonionic surfactant.